

Notice of Allowability

Application No.

09/844,857

Examiner

Mohammad A. Siddiqi

Applicant(s)

GARCIA-LUNA-ACEVES ET AL.

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 06/29/2007. 7/30/2007
2. ☒ The allowed claim(s) is/are 15,20-23 (rearranged claims 1-5).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a) (a) ☐ All (b) ☐ Some* (c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date See Continuation Sheet
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Continuation of Attachment(s) 3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date: 06/29/2007, 04/12/2006, 7/30/07

DETAILED ACTION

- 1.** Claims *15, and 20-23* are allowed.

EXAMINER'S AMENDMENT

- 2.** An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Tatiana Rossin on 07/31/2007.

In the Specification:

Please replace paragraph [0002] with the following paragraph:

This application is also related to U.S. Patent Application 09/810,148, entitled "System and Method for Discovering Information Objects and Information Object Repositories in Computer Networks", filed March 15, 2001, now U.S. Patent No. 7,162,539 B2, issued January 9, 2007.

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Please replace paragraph [0035] with the following paragraph:

Furthermore, Rodriguez, Biersack, and Ross (P. Rodriguez, E.W. Biersack, and K.W. Ross, ~~"Improving The Latency in The Web: Caching or Multicast?," Proc. Third WWW Caching workshop, Manchester, UK, June 1998.~~) "Improving the WWW: Caching or Multicast?," Institut EURECOM 2229, Route Computer Networks and ISDN Systems, pp. 1-17 (March 30, 1998) have shown that multicasting Web documents is an attractive alternative to hierarchical Web caching only when the documents to be pushed are very popular, caching distribution incurs less latency.

Please replace paragraph [0062] with the following paragraph:

To reduce communication and processing overhead in Web routers, a topology of Web routers is defined, such that a given Web router has as its neighbor Web routers a subset of all the Web routers in the system (where the term system refers to all or a portion of the virtual network for Web routers discussed above). A Web router may thus be configured with its set of neighbor Web routers. Such a configuration may be a table of neighbor Web routers which is defined by a network service provider and/or is dynamically updated. In another embodiment of the present invention, a Web router dynamically selects the set of neighbor Web routers with which it should communicate out of all of the Web routers in the system. A Web

router preferably communicates with its neighbor Web routers only and uses the Web Information Locator by Distance (WILD) protocol for this purpose. The WILD protocol is disclosed in co-pending and commonly-owned U.S. Provisional Application No. 60/200,401, filed April 28, 2000, ~~now~~from which U.S. Patent Application 09/810,148, filed March 15, 2001 (now U.S. Patent No. 7,162,539 B2, issued January 9, 2007) claims priority.

Please replace paragraph [0063] with the following paragraph:

In one embodiment of the present invention, WILD runs on top of the Transmission Control Protocol (TCP) in much the same way as the Border Gateway Protocol (BGP) does. In this embodiment, a TCP connection exists between a Web router and each of its neighbor Web routers. In another embodiment of the present invention, WILD can run on top of the TCP Santa Cruz protocol [C. Parsa and J.J. Garcia-Luna-Aceves, "TCP-Santa Cruz: Improving TCP Performance over Networks with Heterogeneous Transmission Media", Proc. IEEE ICNP 99], which is disclosed in commonly-owned U.S. Provisional Application No. ~~60/190,332~~60/190,331, filed on March 16, 2000, ~~now~~from which U.S. Patent Application No. ~~09/~~09/810,148, filed March 15, 2001 (now U.S. Patent No. 7,162,539 B2, issued January 9, 2007) claims priority. Other embodiments of the present

invention may be based on alternative protocols for the provision of reliable transmissions between Web routers.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad A. Siddiqi whose telephone number is (571) 272-3976. The examiner can normally be reached on Monday -Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MAS